

****ATTENTION****

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Elk in Washington

The Wapiti, or elk, is the second largest member of the deer family found in the United States. Only the moose is larger. Native to this country, elk were found in early pioneer days throughout most of the United States, except the areas along the Atlantic seaboard, the Gulf States and Nevada. Washington elk represent two subspecies: the Roosevelt elk (*Cervus elaphus roosevelti*) whose original range included the western parts of Washington, Oregon and California, and Rocky Mountain elk (*Cervus elaphus nelsoni*), whose original range included mountainous areas of Idaho, Utah, Colorado and Arizona. A broad geographical gap originally separated the subspecies.

At the beginning of the twentieth century, elk had disappeared from the eastern and the Great Plains states, retreating to their current ranges in the Rocky Mountain states to the west.

The earliest recorded use of the term "elk" to describe the species, according to Ernest Thompson Seton, was in 1605, when the animals found in Virginia were referred to as "Olkies," a term commonly pronounced as "elk." "Wapiti," long used to describe the European and Asiatic species of stag, or large deer, was also, according to Seton, used by the Shawnee Indians. Today wapiti usually refers to this animal on other continents.

Of the six subspecies of elk recognized in the United States, two are found in Washington. Roosevelt elk,

from earliest recorded time, have roamed the mountainous areas of the Olympic Peninsula. Rocky Mountain elk, sometimes called Yellowstone elk, were introduced although records note that some of these animals were found in the Okanogan and Blue Mountain areas late in the nineteenth century.

Elk were found in the Olympic Peninsula, but only a few elk were found in the eastern part of the state during early settlement. Elk were seen by early explorers, chiefly in the lowland river bottoms and prairies of Western Washington. Historical reports indicate cougar were the principal factor limiting the elk population during that period. As settlers cultivated the lowlands, elk were forced to the hills. Settlers soon replaced cougars as the principal predator.

ELK HUNTING

Elk hunting was regulated by individual counties prior to creation of the State Game Department in 1933.

Our oldest game regulations date back to 1897-1900. These authorized the taking of two elk during an open season. In 1901 the limit was reduced to one male elk. In 1905, by legislative act, all elk hunting in Washington was prohibited until 1915, which was later extended to 1925. In 1927, one elk could be legally taken in counties east of the Cascades.

In 1934, Department of Wildlife records show that on the Olympic Peninsula a four-day season was inaugu-

rated, resulting in the killing of 157 out of an estimated herd of 6,000. The elk season on the Olympic Peninsula had been closed for many years, during which poaching and unlawful shooting had become rampant. It was widely known that poachers were selling elk meat to regular customers and had been for years. In a 1934 biennial report of the State Game Department stated that the number of elk lawfully shot was smaller than the number unlawfully killed in prior years.

In 1935, 878 hunters took 250 bull elk for their season's kill. In the following years, there was a gradual increase in the number of hunters, and seasons were fairly restrictive and the harvest stable.

In the history of elk management in Washington, elk numbers were small until the early 1940s, when elk populations increased and the number of hunters jumped from less than 8,000 to more than 20,000.

By 1949, damage problems were prevalent in almost every elk area in the state. To solve these problems, very liberal seasons were established for the next three years. During the period 1950-52, 212 antlerless animals were taken for each 100 bulls harvested. This resulted in a substantial herd reduction and in 1953, a restrictive pattern was again adopted. This permitted the elk herds to start building and there was a fairly steady increase in the population until about 1970 when elk numbers stabilized. Elk hunter numbers peaked in 1978 at 118,000.

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INTRODUCTIONS

In 1912, 186 elk were imported from Montana and released in Washington. All were apparently killed by poachers and predators, except 80 animals released near Enumclaw. Some of these animals survived and became the nucleus of the present-day Mt. Ranier elk herd. In 1913, 121 more elk were brought to Washington from Montana. Fifty of these were released in the Naches River area of Yakima County, resulting in the Yakima herd of some 12,000 animals today. Also in 1913, a rail carload of elk were released eight to 10 miles east of Ellensburg forming the nucleus of today's Colockum elk herd. In Garfield and Walla Walla counties, 65 more elk were set free, forming the popular Blue Mountain herd. At various other times since that date, additional elk have been either imported or transplanted within the state, so that there are more than 52,000 throughout the western southcentral and southeastern part of the state.

PHYSICAL CHARACTERISTICS

Rocky Mountain elk, in general, are slightly lighter colored than the Roosevelt elk of the western counties and slightly smaller in size. (The Roosevelt elk is only about five percent larger than Rocky Mountain elk.) Body color of the elk vary slightly between winter and summer. The fall coat, as usually observed by hunters, is a brown color, varying from grayish on the sides to very dark—sometimes, almost black—on the neck and legs. On the lower part of the body and upper portions of the legs, a rich shade of brown prevails, most pronounced in old bulls. The elk's most distinctive color feature is the rump patch, which is usually tawny, varying to a pale whitish or cream color. Beneath the chin and extending down the throat is the mane,

ELK ANTLERS: THREE...FOUR...TEN POINT?

Many elk hunters are confused as to what to call their trophy. Prime adult elk have six "tines" or points on each side. As a matter of practice in the western United States, only antler points on one side of the animal are counted.

Antler descriptions go back to European medieval times. Young elk, one and a half years old, usually have a single point or "spike". Spike length may vary from a few inches to over 15 inches long. Antler growth is greatly dependent upon quality and quantity of food available.

Older bulls usually have more points, but poor food or mineral supply may retard antler development. Like deer, elk shed their antlers each year. The second set of antlers are typically four or five points. Some two and a half year old elk may have only one "brow" tine, or eye guard. Some have an additional "bay" or "bez" tine, but lack the third tine found on a mature rack. This third tine is called the "trez" tine.

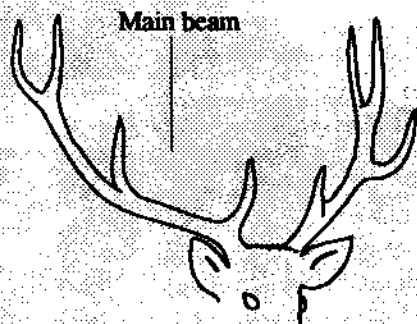
The number of points an elk has is a poor indication of age. As with a horse, tooth development is the most accurate method of determining the age of elk. Counting points is not an accurate indicator of age, but generally the older the bull, the more massive the size of the antlers.

A mature bull elk has a full set of antlers with six points on each side, and is known as a "Royal" head. A bull with 7 points on each side (14 points) is called an "Imperial" stag. The fourth point on the outermost curve of the antler is called the "royal" or "dagger" point. This is the dominant tine of the mature elk's rack. The remaining

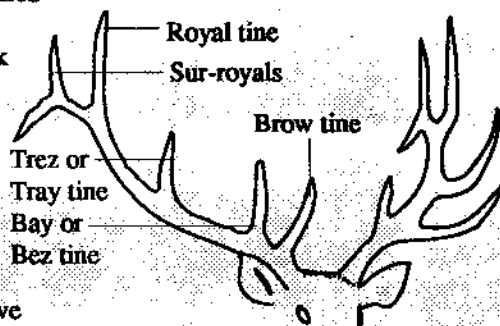


SPIKE

Typical yearling



2 1/2 - 3 1/2 YEARS



ROYAL HEAD

Prime

points occurring at the end of the main beam are called "sur-royals". They are smaller than the other tines, often appearing to be a forking of the main beam at the tip.

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consisting of long dark hairs, consistently characteristic of the elk, even in calves.

Adult bull elk in their prime have been weighed as high as 1,100 pounds, but 700 pounds is an average for a prime adult bull. Around 500 pounds live weight appears to be an average for adult females, while newborn elk calves weigh between 30 and 50 pounds. Range and habitat conditions will cause considerable variance in weights.

As with all members of the deer family except the reindeer, female elk have no antlers. Normally, antler growth on elk bulls begins late in May, when the young animal is nearly one year old. The growth is extremely rapid, beginning with bulbous projections which in a few days become the foundations of the brow tines, to be followed shortly thereafter with second protuberances which eventually become the "bez" tines. (Antler tines were named during European medieval times and as are still known by these names today.) Following this stage, the antlers, now nearly a foot long, grow with amazing speed to produce the remaining structure of the antlers. Antlers are covered with a velvety protection of sensitive blood vessels which feed the growing antlers until August. As full growth is attained, this blood supply is gradually reduced, the parts become less sensitive and the outer covering begins to peel off, often hanging in long shreds. At this stage, the bulls assist the peeling process by rubbing the antlers against trees and brush, until the newly-grown antlers are completely dried and hard and the tines become almost needle sharp at the points. Antler growth is usually slower in younger bulls, and young bulls are often found in the fall with their spikes still in "velvet." Poor nutrition also retards maturation as indicated by growth and hardening of antlers.

Carried throughout the winter season, the antlers, as a rule, are shed by the middle of March, to be followed by the growth cycle again. The dropped antlers, although bone-hard, are generally soon consumed by mice, rats, squirrels, and porcupines, and usually do not last long once they are on the ground.

Elk are noisy animals by wildlife standards. They have been described as "squealing, barking, roaring and bugling," together with many other various vocal outbursts. Cows and calves appear to communicate with a bleating sound and, when alarmed, often emit a high-pitched squeal. Adult elk, when excited or startled, may voice an explosive grunt similar to a hoarse bark. Both cows and bulls are known to "bugle," but the bugle of an adult bull elk is far more distinctive, being a shrill, high-pitched whistle, clear and far-carrying in its intensity. The sound of the cow is a combination of squeal and groan, difficult to describe, which occasionally drops to a series of low, short whines.

REPRODUCTION

A cow elk normally breeds for the first time at about two and one-half years of age, while the bull elk becomes sexually mature somewhat younger, usually at about 18 months. The rutting season begins about mid-September and usually continues until mid-October. During September the bull is pugnacious in nature, and often battles with other bulls for control of a "harem" of cows over which he has assumed proprietary interests. In prime physical condition at this time, such battles rarely end with death of one of the participants.

Elk calves are born in late spring at about the same time the first signs of antler growth are apparent in the bulls. A single calf is usually produced by each adult cow, although twins are

estimated to occur about one in three hundred births. At the sign of danger, young calves instinctively drop to ground the first two weeks of life and lie motionless, thus often escaping detection. After two weeks of age they are more likely to flee when approached. Most elk calves begin to feed on browse when about one month old, but suckling continues throughout the summer months.

FOOD HABITS

In general, grasses and sedges are the main items in the diet of wild elk, although this depends considerably on the plants of the local habitat. On ranges which are overgrazed, elk will utilize browse to a large extent and include in their diet such shrubs and trees as fir, maple, serviceberry, dogwood, aspen, pine, willow and many other species, including at least two kinds of sage.

PREDATION

Natural enemies of elk in Washington include the cougar, coyote, dogs and, to some extent, the bobcat, bear and golden eagle, although the latter three are more prone to attack and consume young calves or severely injured animals. While even a newborn calf is too heavy for an eagle to carry away, these birds have been noted to strike an elk calf a swooping blow, thus maiming or killing it, and later consuming it.

MANAGEMENT

Elk ranges currently support about 52,000 animals, although in some parts of the state range conditions are deteriorating. An annual harvest of between 8,000 and 10,000 is expected to continue.

The basic objective of Washington's elk management program is to provide a variety of hunting seasons to optimize

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recreational opportunities. Some seasons are permit only, some are archery-or muzzleloader-only hunts, some are branched bull, while other hunts have road closures and others are open to any bull with no other restrictions. This variety of hunting opportunities enables hunters to select the type of hunt they desire.

The future of Washington's elk depends entirely upon sound wildlife management policies. With civilization's borders constantly encroaching upon the wilderness areas which form natural elk habitat, adequate ranges must be maintained for their survival. Purchases of Wildlife Areas, and artificial feeding programs on Department lands have been beneficial to elk populations, particularly in the Yakima area where winter range is lacking.

Research programs are currently underway to determine the value of forage seeding on tree plantations. Will the planting of palatable plants benefit elk as well as reduce damage to conifer seedlings? Preliminary results are promising but further studies are needed.

In 1982, the Wildlife Commission directed the Department to consider alternative hunting seasons involving weapon selection, branched antler

regulations and any other regulations that would enhance quality and reduce hunter crowding. The Department formed a Big Game Ad Hoc Committee on Resource Allocation to get sportsmen assistance in program direction. Sportsmen from each major hunting organization in the state were asked to provide a representative on this committee. The Big Game Ad Hoc Committee met throughout 1983 and as a result of these discussions recommended major changes in elk hunting in 1984.

The changes involved:

- Area elk tags throughout the state
- Either or weapon selection
- Quality management areas
- More branched antler areas
- More road closures
- Enhanced primitive weapon opportunity

In 1984 the Wildlife Commission adopted the major changes recommended by the Department. Some refinements in seasons have been made since then but the major changes have been endorsed by sportsmen.

In 1989 the Blue Mountain Area was modified to improve bull ratios. After several years of poor bull

escapement, the Department recommended alternative seasons that would result in improved bull escapement. The Commission adopted spike-only bull hunting for 1989. In future years all hunters will be able to hunt spikes but a few permits will also be authorized for branched antler bulls.

The Wapiti, increasingly becoming a coveted prize among big game hunters, is a definite wildlife asset to our state, and under proper management will continue to thrive and vie with the mountain goat and deer for popularity, not only among sportsmen, but also among those who enjoy the aesthetic values of this noble animal.

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ELK DISTRIBUTION

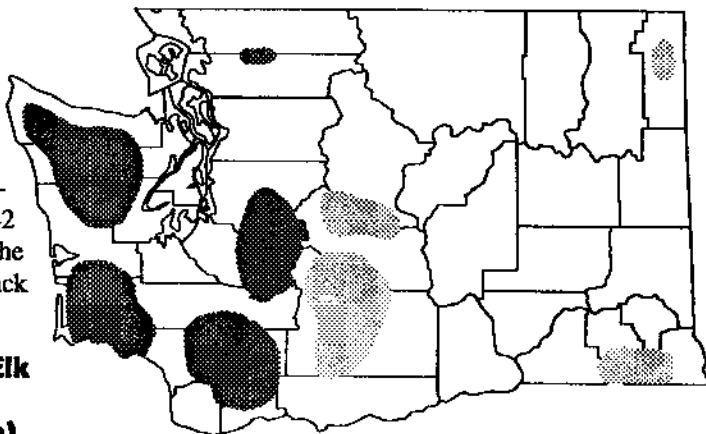
The elk herds of Washington are now largely restricted to seven major areas of the state. The two major herds are Yakima (12,000) 23 percent, and Olympic (10,000) 19 percent, or 42 percent of the population between them. Blue Mountains (7,000), Wenatchee Mountains (6,000) and Saint Helens (8,000) supply another 42 percent and the balance of 16 percent is contained in the herds of Mt. Rainier (3,500), Willapa (3,000), Nooksack (1,500), and Pend Oreille (500).



**Rocky Mountain Elk
(Eastern Washington)**



**Roosevelt Elk
(Western Washington)**



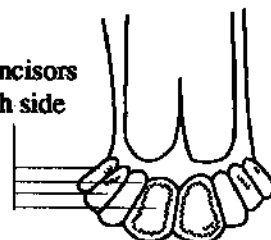
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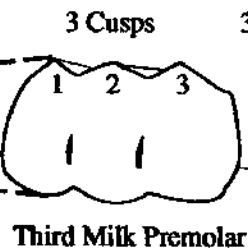
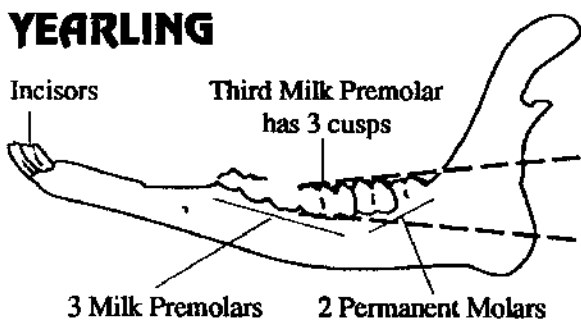
DETERMINING ELK AGE BY TEETH

CALF

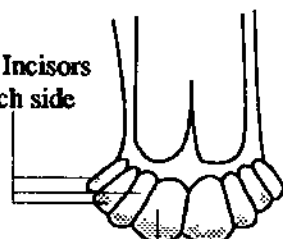
4 Milk Incisors
on each side



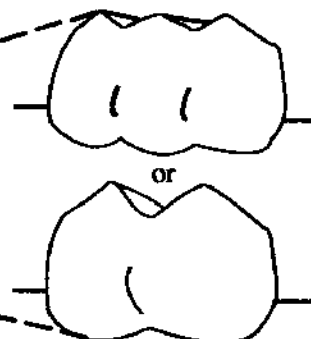
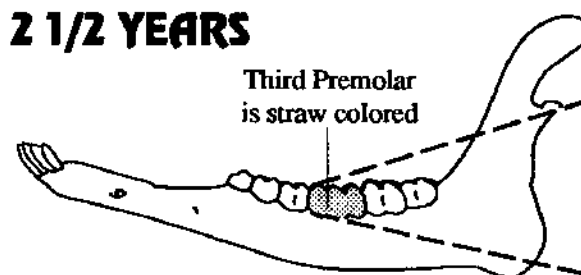
YEARLING



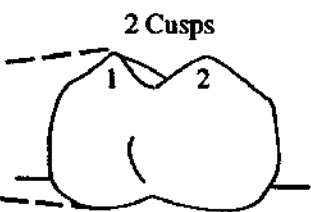
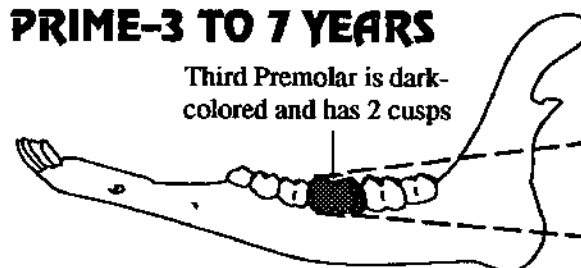
3 Milk Incisors
on each side



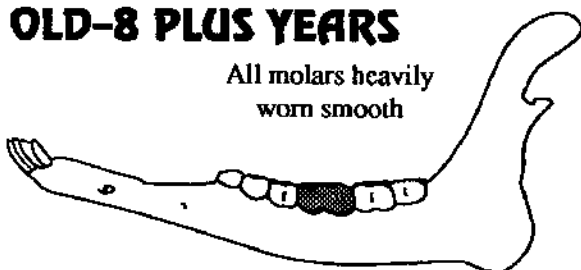
2 1/2 YEARS



PRIME-3 TO 7 YEARS



OLD-8 PLUS YEARS



All Incisors heavily worn

